FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: November 18, 1996
Date Received: November 14, 1996
Project: Metro Self Monitor, PO# M55259
Date Samples Extracted: November 15, 1996
Date Extracts Analyzed: November 15, 1996

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR CHROMIUM, COPPER, NICKEL, AND ZINC USING METHOD 6010

Samples Processed Using Method 3005A

Results Reported as µg/L (ppb)

Sample ID	Chromium	Copper	Nickel	Zinc
M55259	0.12	0.12	0.14	<0.05
Method Blank	<0.05	<0.05	<0.05	<0.05

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QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 73797 (Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	1.5	1.2	22h	0-20
Copper	mg/L (ppm)	0.52	0.51	2	0-20
Nickel	mg/L (ppm)	2.8	2.4	15	0-20
Zinc	mg/L (ppm)	1.0	1.0	0	0-20

Laboratory Code: 73937 (Matrix Spike)

Analyte:	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	Relative Percent Difference
Chromium	mg/L (ppm)	5	1.5	91	94	80-120	3
Copper	mg/L (ppm)	5	0.52	94	100	80-120	6
Nickel	mg/L (ppm)	10	2.8	92	97	80-120	5
Zinc	mg/L (ppm)	5	1.0	95	100	80-120	5

Laboratory Code: Spike Blank

Analyte:	Reporting Units	Spike Level	% Recovery MS	% Recovery MSD	Acceptance Criteria	Relative Percent Difference
Chromium	mg/L (ppm)	5	102	99	80-120	3
Copper	mg/L (ppm)	5	100	96	80-120	4
Nickel	mg/L (ppm)	10	103	100	80-120	3
Zinc	mg/L (ppm)	5	104	100	80-120	4

h - The process water sample contained a high level of suspended particulates. The variability can be attributed to this sample type.

KNJ AI
11-14-96
1:40 pm

FRIEDMAN & BRUYA, INC.
3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282

SAMPLE CHAIN OF CUSTODY

Send Report To:
Company Alaskan Copper Works Contact Gerald Thompson
Address 628 Hanford St.
City, State, Zip Seattle WA 98134
Phone # (206) 382-8575 Date

SITE NO.	PROJECT NAME	PURCHASE ORDER #
7238	METRO Self Monitor	M 55259

SAMPLERS *(signature)* PROJECT LOCATION
3200 6th Ave S.

REMARKS

SAMPLE DISPOSAL INFORMATION
- ☐ Dispose after 30 days
- ☒ Return Samples
- ☐ Call for Instructions

Sample #	Date/Time Sampled	Type of Sample	# of Jars	Lab Sample #	Analyses Requested
M55259	11/14/96 12:30	H2O	1	73936	CR Cu Ni Zn

SIGNATURE	PRINT NAME	COMPANY	Date	Time
Relinquished by:	Gerald Thompson	ACW	11/14/96	1:25 pm
Received by::	Kurt Johnson	FB&E	11/14/96	1:26 PM
Relinquished by:				
Received by:				

FORMS/COC 09/19/94

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Beth M. Albertson, M.S.
Bradley T. Benson
Kelley D. Wilt

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044

November 18, 1996

INVOICE # 96ACU1118-2
DUPLICATE COPY

Accounts Payable
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

RE: Project Metro Self Monitor, PO# M55259: Results of testing requested by Gerry Thompson, Project Manager for material submitted on November 14, 1996.

1 water sample analyzed for Chromium, Copper, Nickel, and Zinc using Method 6010 @ $65 per sample	$ 65.00
Amount Due	$ 65.00

FRIEDMAN & BRUYA, INC.

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November 18, 1996

Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on November 14, 1996 from your Metro Self Monitor, PO# M55259 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Kurt Johnson
Chemist

keh
Enclosures
ACU1118R.DOC